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| EXAMINER | |
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| MOORE, IAN N | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/675,565 | VARMA ET AL. | |
| | Examiner | Art Unit | |
| | IAN N. MOORE | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *09 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *45,47-50 and 57-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *45,47-50 and 57-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1-15-08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 45, 47, 50, 52, 55 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raissinia (US006430193B1) in view of Malmgren (US006807154B1).

**Regarding Claim 45**, Raissinia discloses a method of adaptation in point to multipoint communication (see FIG. 1-2, a point to multipoint network processing the methods/steps; see col. 3, line 64 to col. 4, line 7), the method including steps of:

determining, by a base station (see FIG. 1-3, head End or central access point 102), physical and media access control parameters to be used by each of plural customer premises equipment (see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data (e.g. power adjustment) for one or more subscriber units);

packaging said physical and media access control parameters (see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data) in descriptor packets (see FIG. 5A-C, in downstream broadcast/unicast packets/code words; see col. 9, line 16-56) having a fixed size (see col. 4, line 30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control

information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment or preambles) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45), with each descriptor packet sent as a first packet in a time division multiple access frame (see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the time division multiple access (TDMA) frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55);

determining, by said base station (see FIG. 1-3, head End or central access point 102), physical and media access control parameters to be used by each of plural customer premises equipment (see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data (i.e. power adjustment) for one or more subscriber units);

packaging said physical and media access control parameters (see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data) in descriptor packets (see FIG. 5A-C, in downstream

broadcast/unicast packets/code words; see col. 9, line 16-56) having a fixed size (see col. 4, line 30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment or preambles) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45), with each descriptor packet sent as a first packet in a time division multiple access frame (see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the TDMA frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55).

In general Raissinia discloses all steps of "determining…", "packaging…", "pre-announcing…in a TDMA frame", determining…", "packaging…", and "pre-announcing…in a TDMA frame" as set forth above.

Raissinia does not explicitly disclose **new**.

However, it is well known in the art of mobile communication that TDMA frame is send more than one time in the mobile communication, and the parameters embedded within a new/updated/another TDMA frame is "new/updated/another" parameter. Thus, Raissinia's

steps/functions of "determining…", "packaging…", and "pre-announcing…in a TDMA frame" can be repeated for another/new/update TDMA frame with new/updated/another parameter.

In particular, Malmgren teaches updating and broadcasting new parameters with descriptor packet as a first packet in TDMA frame (see FIG. 2, see col. 4, line 9-15, 30-67; see col. 5, line 55 to col. 6, line 10; abstract; dynamically updating new/updated/another with Broadcast Control Channel (BCCH) as a first data/packet in TDMA frame (see FIG. 2-3); note that updating occurs at second/new transmission after first transmission).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide performing the same steps with a new/updated/another parameter, by Malmgren in the system of Raissinia, so that it would provide additional/new physical layer control information such as scheduling information and/or frequency control information to the subscribers; see Raissinia see col. 5, line 29-35; and it would also provide a spectrum efficient radio link adaptation by using BCCH to adapt the radio cell to prevailing radio condition, Malmgren col. 3, line 30-40.

**Regarding Claim 47**, Raissinia discloses wherein said physical and media access control parameters are in a first layer of an OSI model communication system (see col. 4, line 30-40; physical and MAC layers control information are in the first layer (i.e. physical connection- layer 1) of OSI multilayer model).

**Regarding Claim 50**, Raissinia discloses a base station (see FIG. 1-3, head End or central access point 102) for use with point to multipoint communication (see FIG. 1, point to multipoint wireless network (i.e. from Head end 102 to subscribers 104); see col. 3, line 64 to col. 4, line 7), comprising:

at least one antenna (see FIG. 2, antenna that couples to upstream 306 and downstream physical layer 308; see col. 5, line 46-57);

a processor (sees FIG. 2, CPU 302; see col. 5, line 46-57);

program and data memory (see FIG. 2, a memory must be present to stores the programs/instructions/methods for CPU 302 to process; see col. 5, line 46-57); and

communication elements that send and receive information over said communication link using said antenna under control of said processor (see FIG. 3, Upstream block 306 and downstream block 308 receives/sends data signals over the radio link using antenna according to CPU 302 since CPU 302 coordinates overall operation of headed 102; see col. 5, line 46-57);

wherein said processor operates under control of instructions stored in said memory (see FIG. 2, CPU 302 coordinates overall operating of headed 102 according to the methods/instructions stored in the memory; see col. 5, line 46-57), said instructions including steps of:

determining physical and media access control parameters to be used by each of plural customer premises equipment (see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data for one or more subscriber units);

packaging said physical and media access control parameters (see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data) in descriptor packets (see FIG. 5A-C, in downstream broadcast/unicast packets/code words; see col. 9, line 16-56) having a fixed size (see col. 4, line 30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control

information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45), with each descriptor packet sent as a first packet in a time division multiple access frame (see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the TDMA frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55);

determining, by said base station (see FIG. 1-3, head End or central access point 102), physical and media access control parameters to be used by each of plural customer premises equipment (see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data (i.e. power adjustment) for one or more subscriber units);

packaging said physical and media access control parameters (see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data) in descriptor packets (see FIG. 5A-C, in downstream broadcast/unicast packets/code words; see col. 9, line 16-56) having a fixed size (see col. 4, line

30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment or preambles) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45), with each descriptor packet sent as a first packet in a time division multiple access frame (see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the TDMA frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55).

In general Raissinia discloses all steps of "determining…", "packaging…", "pre-announcing…in a TDMA frame", determining…", "packaging…", and "pre-announcing…in a TDMA frame" as set forth above.

Raissinia does not explicitly disclose **new**.

However, it is well known in the art of mobile communication that TDMA frame is send more than one time in the mobile communication, and the parameters embedded within a new/updated/another TDMA frame is "new/updated/another" parameter. Thus, Raissinia's

steps/functions of "determining…", "packaging…", and "pre-announcing…in a TDMA frame" can be repeated for another/new/update TDMA frame with new/updated/another parameter.

In particular, Malmgren teaches updating and broadcasting new parameters in a TDMA frame (see FIG. 2, see col. 4, line 9-15, 30-67; see col. 5, line 55 to col. 6, line 10; abstract; dynamically updating new/updated/another with Broadcast Control Channel (BCCH) as a first data/packet in TDMA frame (see FIG. 2-3); note that updating occurs at second/new transmission after first transmission).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide performing the same steps with a new/updated/another parameter, by Malmgren in the system of Raissinia, so that it would provide additional/new physical layer control information such as scheduling information and/or frequency control information to the subscribers; see Raissinia see col. 5, line 29-35; and it would also provide a spectrum efficient radio link adaptation by using BCCH to adapt the radio cell to prevailing radio condition, Malmgren col. 3, line 30-40.

**Regarding Claim 52**, Raissinia discloses wherein said physical and media access control parameters are in a first layer of an OSI model communication system (see col. 4, line 30-40; physical and MAC layers control information are in the first layer (i.e. physical connection- layer 1) of OSI multilayer model).

**Regarding Claim 55**, Raissinia discloses a memory storing information including instructions (see FIG. 2, a memory must be present to stores the programs/instructions/methods for CPU 302 to process; see col. 5, line 46-57), the instructions executable by a processor (see FIG. 2, CPU 302; see col. 5, line 46-57) to control a base station (see FIG. 1-3, head End or

central access point 102) for use with point to multipoint communication (see FIG. 1, point to multipoint wireless network (i.e. from Head end 102 to subscribers 104); see col. 3, line 64 to col. 4, line 7), the instructions including steps of:

determining, by a base station (see FIG. 1-3, head End or central access point 102), physical and media access control parameters to be used by each of plural customer premises equipment (see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data (e.g. power adjustment) for one or more subscriber units);

packaging said physical and media access control parameters (see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data) in descriptor packets (see FIG. 5A-C, in downstream broadcast/unicast packets/code words; see col. 9, line 16-56) having a fixed size (see col. 4, line 30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45), with each descriptor packet sent as a first packet in a time division multiple access frame (see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-

65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the TDMA frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55);

determining, by said base station (see FIG. 1-3, head End or central access point 102), physical and media access control parameters to be used by each of plural customer premises equipment (see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data (e.g. power adjustment) for one or more subscriber units);

packaging said physical and media access control parameters (see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data) in descriptor packets (see FIG. 5A-C, in downstream broadcast/unicast packets/code words; see col. 9, line 16-56) having a fixed size (see col. 4, line 30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45), with each descriptor packet sent as a first packet in a time

division multiple access frame (see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the TDMA frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55).

In general Raissinia discloses all steps of "determining…", "packaging…", "pre-announcing…in a TDMA frame", determining…", "packaging…", and "pre-announcing…in a TDMA frame" as set forth above.

Raissinia does not explicitly disclose **new**.

However, it is well known in the art of mobile communication that TDMA frame is send more than one time in the mobile communication, and the parameters embedded within a new/updated/another TDMA frame is "new/updated/another" parameter. Thus, Raissinia's steps/functions of "determining…", "packaging…", and "pre-announcing…in a TDMA frame" can be repeated for another/new/update TDMA frame with new/updated/another parameter.

In particular, Malmgren teaches updating and broadcasting new parameters in a TDMA frame (see FIG. 2, see col. 4, line 9-15, 30-67; see col. 5, line 55 to col. 6, line 10; abstract; dynamically updating new/updated/another with Broadcast Control Channel (BCCH) as a first data/packet in TDMA frame (see FIG. 2-3); note that updating occurs at second/new transmission after first transmission).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide performing the same steps with a new/updated/another parameter, by Malmgren in the system of Raissinia, so that it would provide additional/new

physical layer control information such as scheduling information and/or frequency control information to the subscribers; see Raissinia see col. 5, line 29-35; and it would also provide a spectrum efficient radio link adaptation by using BCCH to adapt the radio cell to prevailing radio condition, Malmgren col. 3, line 30-40.

**Regarding Claim 57**, Raissinia discloses wherein said physical and media access control parameters are in a first layer of an OSI model communication system (see col. 4, line 30-40; physical and MAC layers control information are in the first layer (i.e. physical connection- layer 1) of OSI multilayer model).

3. Claims 48,49,53,54,58 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raissinia in view of Malmgren, and further in view of Newton Telecom Dictionary (hereinafter refers as Newton).

**Regarding Claim 48**, Raissinia discloses wherein said step of determining said physical and media access control parameters is responsive to a higher level layer (see col. 4, line 30-40; col. 5, line 1-4, 46-56; see col. 6, line 30-36, 44-50; see col. 7, line 12-16, 55-60; col. 9, line 16-25; determining/defining physical and MAC layer control information/data (i.e. power adjustment**)** is reacting/in-response-to/receptive to the higher layer). Raissinia also discloses layers in access point and subscriber units correspond to layers of OSI multi-layer model of communication (see col. 4, line 25-35). Malmgren discloses the "new" physical and media access control parameters as set forth above in claim 45.

Neither Raissinia nor Malmgren explicitly discloses higher level layer in said OSI model communication system.

However, it is well known in the art that OSI model contains higher level layers as established by International Standards Organization (ISO) standard. In particular, Newton discloses higher level layer in said OSI model communication system (see OSI Model and OSI standards, page 497-498; higher layers 3-7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide higher level layers of OSI, as taught by Newton, in the combined system of Raissinia and Malmgren, so that it would provide a network design framework to allow equipment from different vendors to be able to communicate; see Newton OSI standard, page 498.

**Regarding Claim 49**, Raissinia discloses higher level layer as set forth above in claim 48. Further, Raissinia discloses wherein said first layer includes a physical layer (see col. 4, line 30-40; the lowest/first layer in OSI standard model is a physical layer).

Neither Raissinia nor Malmgren explicitly discloses at least one of: a media access layer, a network layer, a transport layer, an application layer.

However, it is well known in the art that OSI model contains a media access layer, a network layer, a transport layer, and application layer as established by International Standards Organization (ISO) standard. In particular, Newton discloses said higher OSI level layer includes at least one of OSI standard layer one of a data link layer 2 (i.e. media access layer), a network layer 3, and an application layer 7; see OSI model page 497).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide OSI media access layer, a network layer, a transport layer, or an application layer, as taught by Newton, in the combined system of Raissinia and Malmgren,

so that it would provide a network design framework to allow equipment from different vendors to be able to communicate; see Newton OSI standard, page 498.

**Regarding Claim 53**, Raissinia discloses wherein said step of determining said physical and media access control parameters is responsive to a higher level layer (see col. 4, line 30-40; col. 5, line 1-4, 46-56; see col. 6, line 30-36, 44-50; see col. 7, line 12-16, 55-60; col. 9, line 16-25; determining/defining physical and MAC layer control information/data (i.e. power adjustment**)** is reacting/in-response-to/receptive to the higher layer). Raissinia also discloses layers in access point and subscriber units correspond to layers of OSI multi-layer model of communication (see col. 4, line 25-35). Malmgren discloses the "new" physical and media access control parameters as set forth above in claim 50.

Neither Raissinia nor Malmgren explicitly discloses higher level layer in said OSI model communication system.

However, it is well known in the art that OSI model contains higher level layers as established by International Standards Organization (ISO) standard. In particular, Newton discloses higher level layer in said OSI model communication system (see OSI Model and OSI standards, page 497-498; higher layers 3-7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide higher level layers of OSI, as taught by Newton, in the combined system of Raissinia and Malmgren, so that it would provide a network design framework to allow equipment from different vendors to be able to communicate; see Newton OSI standard, page 498.

**Regarding Claim 54**, Raissinia discloses higher level layer as set forth above in claim 48. Further, Raissinia discloses wherein said first layer includes a physical layer (see col. 4, line 30-40; the lowest/first layer in OSI standard model is a physical layer).

Neither Raissinia nor Malmgren explicitly discloses at least one of: a media access layer, a network layer, a transport layer, an application layer.

However, it is well known in the art that OSI model contains a media access layer, a network layer, a transport layer, and application layer as established by International Standards Organization (ISO) standard. In particular, Newton discloses said higher OSI level layer includes at least one of OSI standard layer one of a data link layer 2 (i.e. media access layer), a network layer 3, and an application layer 7; see OSI model page 497).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide OSI media access layer, a network layer, a transport layer, or an application layer, as taught by Newton, in the combined system of Raissinia and Malmgren, so that it would provide a network design framework to allow equipment from different vendors to be able to communicate; see Newton OSI standard, page 498.

**Regarding Claim 58**, Raissinia discloses wherein said step of determining said physical and media access control parameters is responsive to a higher level layer (see col. 4, line 30-40; col. 5, line 1-4, 46-56; see col. 6, line 30-36, 44-50; see col. 7, line 12-16, 55-60; col. 9, line 16-25; determining/defining physical and MAC layer control information/data (i.e. power adjustment) is reacting/in-response-to/receptive to the higher layer). Raissinia also discloses layers in access point and subscriber units correspond to layers of OSI multi-layer model of

communication (see col. 4, line 25-35). Malmgren discloses the "new" physical and media access control parameters as set forth above in claim 55.

Neither Raissinia nor Malmgren explicitly discloses higher level layer in said OSI model communication system.

However, it is well known in the art that OSI model contains higher level layers as established by International Standards Organization (ISO) standard. In particular, Newton discloses higher level layer in said OSI model communication system (see OSI Model and OSI standards, page 497-498; higher layers 3-7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide higher level layers of OSI, as taught by Newton, in the combined system of Raissinia and Malmgren, so that it would provide a network design framework to allow equipment from different vendors to be able to communicate; see Newton OSI standard, page 498.

**Regarding Claim 59**, Raissinia discloses higher level layer as set forth above in claim 48. Further, Raissinia discloses wherein said first layer includes a physical layer (see col. 4, line 30-40; the lowest/first layer in OSI standard model is a physical layer).

Neither Raissinia nor Malmgren explicitly discloses at least one of: a media access layer, a network layer, a transport layer, an application layer.

However, it is well known in the art that OSI model contains a media access layer, a network layer, a transport layer, and application layer as established by International Standards Organization (ISO) standard. In particular, Newton discloses said higher OSI level layer includes

at least one of OSI standard layer one of a data link layer 2 (i.e. media access layer), a network layer 3, and an application layer 7; see OSI model page 497).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide OSI media access layer, a network layer, a transport layer, or an application layer, as taught by Newton, in the combined system of Raissinia and Malmgren, so that it would provide a network design framework to allow equipment from different vendors to be able to communicate; see Newton OSI standard, page 498.

***Response to Arguments***

4. Applicant's arguments filed 12/7/07 have been fully considered but they are not persuasive.

**Regarding specification objection, the applicant argued, *inter alia*, the following:**

"…referred to page 13, lines 6-18 which describes the construction of the pre-announce packets which are referred to as "new". However, from the teaching in the Specification, particularly with respect to Fig. 3C, described from page 27, line 1 to page 28, line 18, it is set forth that during the transmissions, the base station gets maintenance feedback from the customer, and changes the link parameters (p. 28, lines 15-16) in response to such feedback. Semantics aside**, it would be obvious to one skilled in the art in reading the Specification that the customer parameters are updated as a result of feedback and that there is an original or first determination of parameters packaged into first pre-announce packet which then is changed i.e. further determination (based on feedback) into a subsequent or new determination resulting in a new pre-announce packet**" in page 9-10.

**In response to applicant's argument**, t**he examiner** acknowledges the applicant admission (see bolded text above) which states, in summary, that it would be obvious to one skilled in the art that original or first pre-announce packet is present (although it is not recited in

the specification) since there is a changed/new pre-announce packet is recited in the specification. Accordingly, the specification objection is withdrawn.

**Regarding claims 45, 47-50, 52-55, 57-59, the applicant argued that**, "…Raissinia does not suggest anything in the implementation of each frame in the TDMA process as defined in the present invention...determining control parameters to be used by customer and equipment, and packaging these control parameters in descriptor packets being sent as a first pre-announce packet in each TDMA frame sent from the base station to the customer equipment... Raissinia fails to suggest…determining new control parameter to be used by customer equipment and the packaging these new control parameter in new descriptor packets being sent as a first pre-announce packet in each TDMA frame sent from the base station to the customer equipment…**while Malmgren may describe updated information transmitted under TDMA protocols**, applicants fails to see anything in Malmgren suggestive of the claim descriptor packets or positioning of any such descriptor packets as a new first packet in a new time division multiple access frame..." in page 10-13.

**In response to applicant's argument**, t**he examiner respectfully disagrees** with the argument above.

Raissinia discloses determining, by a base station (**see FIG. 1-3, head End or central access point 102**), physical and media access control parameters to be used by each of plural customer premises equipment (**see FIG. 1, subscribers 104; see col. 4, line 55-64; see col. 5, line 1-45; determining/defining physical and MAC layer control information/data (e.g. power adjustment) for one or more subscriber units**);

packaging said physical and media access control parameters (**see FIG. 3, a combined system of codeword formation 312 and encoding 314,316 encodes/formed/packetizes physical and MAC layer control information/data**) in descriptor packets (**see FIG. 5A-C, in downstream broadcast/unicast packets/code words; see col. 9, line 16-56**) having a fixed size (**see col. 4, line 30-40; see col. 5, line 6-35; see col. 6, line 31-40,55-66; dividing each physical and MAC control information/data into a fixed/predefined/predetermined segments known as codewords, and each segmented codeword has a fixed/predefined/predetermined length/size/bytes**); and

pre-announcing said physical and media access control parameters to said customer premises equipment by sending said descriptor packets from said base station to said customer premises equipment (**see FIG. 1,3, transmitter system 318 broadcasts/transmits downstream packets/codewords with physical and MAC control information (i.e. power adjustment or preambles) to subscriber/subscribers 104 from central access point 102; see col. 5, line 30-45; see col. 6, line 6-11,24-35,55-60; see col. 8, line 38-45**), with each descriptor packet sent as a first packet in a time division multiple access frame (**see col. 4, line 25-40; see col. 5, line 30-35; see col. 6, line 45-65; each downstream packet/codeword is a broadcast/SYNC packet which is a first packet, transmitted in the first time slot, in the time division multiple access (TDMA) frame; also see FIG. 5A-C, broadcast codewords (e.g. power control) of FIG. 5A, 5C are transmitted in first packet/data 504, at the beginning/first packet/data in the TDMA frame; see col. 9, line 16-55**).

Malmgren teaches updating and broadcasting new parameters with descriptor packet as a first packet in TDMA frame (see FIG. 2, see col. 4, line 9-15, 30-67; see col. 5, line 55 to col. 6,

line 10; abstract; dynamically updating new/updated/another with Broadcast Control Channel (BCCH) as a first data/packet in TDMA frame (see FIG. 2-3); note that updating occurs at second/new transmission after first transmission).

Note that event applicant admits that "Malmgren discloses **updated information transmitted under TDMA protocols**" in the remark as set forth above.

Thus, the combined system of Raissinia and Malmgren disclose the claimed invention.

**In response to applicant argument,** Raissinia discloses all steps of "determining…", "packaging…", "pre-announcing…in a TDMA frame", determining…", "packaging…", and "pre-announcing…in a TDMA frame" Also, it is well known in the art of mobile communication that TDMA frame is send more than one time in the mobile communication, and the parameters embedded within a new/updated/another TDMA frame is "new/updated/another" parameter. Thus, Raissinia's steps/functions of "determining…", "packaging…", and "pre-announcing…in a TDMA frame" can be repeated for another/new/update TDMA frame with new/updated/another parameter. Malmgren teaches updating and broadcasting new parameters with descriptor packet as a first packet in TDMA frame (see FIG. 2, see col. 4, line 9-15, 30-67; see col. 5, line 55 to col. 6, line 10; abstract; dynamically updating new/updated/another with Broadcast Control Channel (BCCH) as a first data/packet in TDMA frame (see FIG. 2-3); note that updating occurs at second/new transmission after first transmission).

Thus, it is clear that the combined system of Raissinia and Malmgren discloses the argued claimed limitation.

**In response to applicant's arguments** against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the rejection is based on the combined system of Raissinia and Malmgren, and the argument based on individual references is clearly an error. Moreover

**In response to applicant's argument** that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide performing the same steps with a new/updated/another parameter, by Malmgren in the system of Raissinia, ***so that it would provide additional/new physical layer control information such as scheduling information and/or frequency control information to the subscribers; see Raissinia see col. 5, line 29-35; and it would also provide a spectrum efficient radio link adaptation by using BCCH to adapt the radio cell to prevailing radio condition, Malmgren col. 3, line 30-40***.

**Applicant argument in pages 11-14, contradicts applicant admission in page 10.**

In particular, as set forth above, in response to specification objection in page 10, the applicant admits that **it would be obvious to one skilled in the art that original or first pre-announce packet is present (although it is not recited in the specification)** since there is a changed/new pre-announce packet is recited in the specification, which examiner agrees.

However, at the same time, in response to prior art rejection on page 11-14, **applicant is contradicting to his own admission by auguring that it is now not obvious to have a new or updated pre-announce packet**.

Thus, it is clear that applicant argument with respect to prior art rejection is clearly an error since it is obvious to one skilled in the art as admitted by applicant on page 10 of the remarks.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN N. MOORE whose telephone number is (571)272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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